

Notice of Allowability

Application No.

10/737,296

Examiner

Hashem Farrokh

Applicant(s)

BAE, SUNG HO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/10/06.
2. ☒ The allowed claim(s) is/are 1-31.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

PART I **THE EXAMINER'S EVALUATION OF THE APPLICATION**

SECTION A **RELEVANT ART CITED BY THE EXAMINER**

1. *U. S. Patent Publication No. 2004/0268028 A1 to Lee describes Method and apparatus for masking postamble ringing phenomenon in DDR SDRAM.*
2. *U. S. Patent Publication No. 2004/0052151 A1 to Jacobs et al. describes Method and apparatus for improving noise immunity in a DDR SDRAM system.*
3. *U. S. Patent No. 6,560,669 to Ryan describes Double data rate synchronous memory with block-write.*
4. *U. S. Patent No. 6,134,179 A to Ooishi describes Synchronous semiconductor memory device capable of high speed reading and writing.*
5. *Korean Patent Publication No. KR 2005/002521 A to MOON describes Method for masking postamble ringing in DDR SDRAM, especially including ringing blocking unit.*

SECTION B **DISTINGUISHING FEATURES RECITED IN THE CLAIMS**

The following is an **Examiner's Statement of Reasons for Allowance** See **MPEP 1302.14**

1. *The primary reason for allowance of claims 1-3 in instant application is the combination with the inclusion of following limitations: **determining a point in time at which the burst length of the data ends and controlling the operations of the DQS buffer to enable or disable the generation of the first and second signals after determining the point in time at which the burst length of the data ends.***

2. *The primary reason for allowance of claims 4-7 in instant application is the combination with the inclusion of following limitations: means for controlling the operations of the DQS buffer based on a determined point in time, wherein the determined pointed in time is the point in time at which the burst length ends after receiving a write command.*
3. *The primary reason for allowance of claim 8 in instant application is the combination with the inclusion of following limitations: means for generating a control signal which determines an end point in time of a burst length to disable the operation of the DQS buffer based on the determined point in the time and normally recovers the operation of the DQS buffer after the elapse of a predetermined time*
4. *The primary reason for allowance of claim 9 in instant application is the combination with the inclusion of following limitations: determining a point in time at which the burst length ends; disabling the DQS buffer in response to a first burst signal enabled in a burst mode operation*
5. *The primary reason for allowance of claims 10-23 in instant application is the combination with the inclusion of following limitations: means (300, 310, 320, 340, 350) for disabling the DQS buffer for a mask time (dsb) after accessing all data bursts, wherein the mask time (dsb) is calculated based on at least the second access signal (dsft2) and the data burst length*
6. *The primary reason for allowance of claims 24-31 in instant application is the combination with the inclusion of following limitations: wherein the mask time (dsb) is*

calculated based on at least the last pulse of the already generated second access signal (dsft2) and the data burst length (n), and further wherein the calculated mask time sufficiently includes the duration of time in which a ringing is present in the DQS signal

The prior art of record including the disclosures of Lee (2004/0268028 A1), Jacobs et al. (2004/0052151 A1), Ryan (6,560,669), Ooishi (6,134,179 A), and MOON (KR 2005/002521 A) and neither anticipates nor renders obvious the above recited combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays should be clearly labeled "Comments on Statement of Reasons for Allowance"

PART II THE ATTENTION OF FUTURE CORRESPONDENT

*Any inquiry concerning this communication should be directed to Hashem Farrokh whose telephone number is (571) 272-4193. The examiner can normally be reached Monday-Friday from **8:00 AM to 5:00 PM**.*

:IMPORTANT NOTE:


If attempt to reach the above noted Examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Donald A Sparks, can be reached on (571) 272-4201. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either private PAIR or Public PAIR. Status information

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for unpublished application is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBS) at 866-217-9197 (toll-free).

HF
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2005-08-23


Brian R. Peugh
Primary Examiner 8/24/06